

METHOD FOR PROVIDING BACKGROUND SOUND EFFECT FOR

MOBILE PHONE

Field of the invention

The present invention relates to a method for providing background sound
5 effects for mobile phone, and especially to a method for storing at least one
background sound effect in mobile phone such that two conversation parties can
simultaneously hear the background sound effect during conversation.

Background of the invention

The rapid growth of mobile communication and mobile computing technology
10 has had a huge impact on lifestyles and business modes of modern people. More
particularly, the mobile phone has been developed to have many versatile functions
and has become omnipresent.

Increasing numbers of user-friendly functions are continuously added to the
original communication functions of the mobile phone. For example, the mobile
15 phone is also equipped with a caller ID function, vibration for indicating an incoming
call, and a message function. The mobile phone can also access wireless network
through the wireless application protocol (WAP). To provide a more attractive effect,
choral tones are also added to the ring tone of the mobile phone.

Summary of the invention

20 It is an object of the present invention to provide a method for providing a
background sound effect for a mobile phone communicating through a carrier.
Therefore, both telephony parties can hear the background sound while talking.

To achieve the above object, the present invention provides a method for
providing a background sound effect for mobile phone communication through a

carrier. An initial talking message such as a call-answering message by any of the two communication parties is first detected and a background sound effect is selected in an audio memory module in the mobile phone. The background sound effect is sent with the carrier by a DSP unit. Therefore, the two communication parties can
5 simultaneously hear the background sound effect.

Brief description of drawing:

The various objects and advantages of the present invention will be more readily understood from the following detailed description when read in conjunction with the appended drawing, in which:

10 Fig. 1 shows a block diagram of a mobile phone according to the present invention; and

Fig. 2 shows the flowchart of the present invention.

Detailed description of the invention

Fig. 1 shows a block diagram of a mobile phone 10 according to the present
15 invention. The mobile phone 10 is equipped with a plurality of sets of background sounds such as sound mimicking surf, a train station, a metro station or a brook, or classical or soft music. The background sound can be set up or selected to provide the mobile phone 10 with personalized sound effect.

As shown in Fig. 1, the mobile phone 10 comprises at least one wireless
20 transceiver 11, a sound effect memory 12, a sound mixer 13, and a man-machine interface 14. The wireless transceiver 11 is functioned to send/receive a wireless carrier for carrying the voice signal of the mobile phone 10. The wireless transceiver 11 can be used for GSM, GPRS or 3G systems, and the wireless carrier is for GSM, GPRS or 3G systems.

The sound effect memory 12 has a plurality sets of background sound effects stored therein and can be realized by a ROM, in which the background sound effect is permanently recorded, or by a flash memory, in which the background sound effect is recorded or downloaded thereto by the user.

5 The sound mixer 13 is a digital signal processor (DSP) and connected to the wireless transceiver 11 and the sound effect memory 12. The sound mixer 13 fetches at least one sound effect from the sound effect memory 12.

The man-machine interface 14 is used by the user for accessing the mobile phone. The man-machine interface 14 is connected to the sound effect memory 12, whereby a
10 user can select a sound effect from the sound effect memory 12 and mix the same into carrier. The user also can use the man-machine interface 14 to record desired background sound effects in the sound effect memory 12, or download a background sound effect to the sound effect memory 12 through a communication network or the Internet.

15 Fig. 2 shows the flowchart of the present invention, in which the background sound effect is mixed by the wireless carrier and heard by two conversation parties using the mobile phone according to the present invention. At first step 101, a user uses the man-machine interface 14 to select a background sound effect. Afterward, the mobile phone detects an initial message when the user uses the mobile phone for
20 conversation at step 102. The initial message can be one of messages to indicate a dialing action, a reception message for called party and a reception message for the user.

Afterward, the file for the selected background sound effect is fetched from the sound effect memory 12 at step 103. The sound mixer 13 mixes the selected

background sound effect to the carrier at step 104. Therefore, both conversation parties can hear the selected background sound effect carried by the carrier during conversation at step 105.

Although the present invention has been described with reference to the preferred embodiment thereof, it will be understood that the invention is not limited to the details thereof. Various substitutions and modifications have suggested in the foregoing description, and other will occur to those of ordinary skill in the art. Therefore, all such substitutions and modifications are intended to be embraced within the scope of the invention as defined in the appended claims.